

How to use our patterns to construct a model of A COLES MOBILE CRANE

PATTERNS are provided for an interesting model in making one of those modern lifting cranes. These mobile cranes are capable of lifting six tons, with full circle movement, driving petrol/electric or diesel/electric, with 17ft. cantilever jib. Whilst the model is built in wood, it is not entirely a working model, although the top cabin and the fixed jib will revolve on the chassis.

The parts are provided in the kit of wood to which a few pieces of card and string are required in addition. Actual material supplied, includes the celluloid

painted on in lines of black, and the picture of the finished model clearly shows this work to be done.

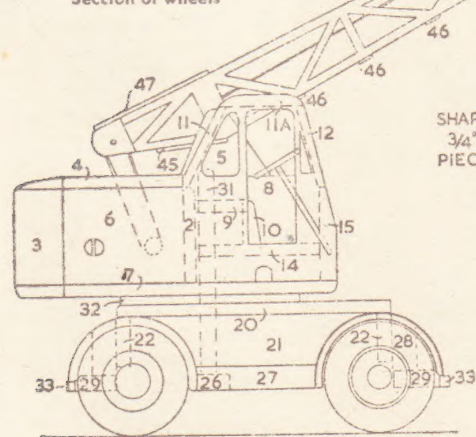
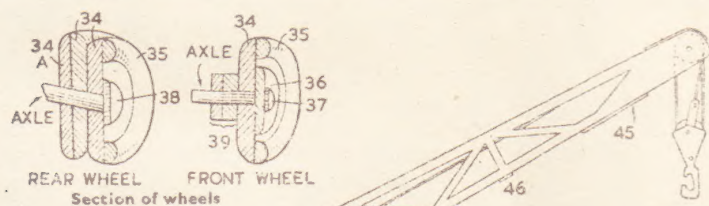
The chassis is built up according to the details shown, and then the axle put through for the wheels. These wheels are made as twin wheels for the rear axle, and single wheels for the front. Both are shown in sectional detail. The mudguards are of card and the guard parts (24) are cut carefully with the tabs bent inwards as seen in the diagram, to stiffen up the underside of the mudguard between the main body and along the running board.

top of the engine portion.

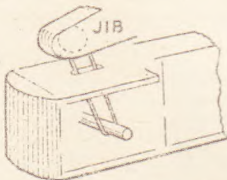
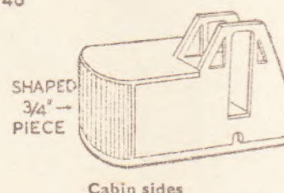
The actual door of the cab is an open aperture, but celluloid is fitted on all other sides, as seen in the diagram. There is even a piece in the top—in part 10. A hole is cut for this, and then the celluloid fits exactly into the aperture being glued on thin fillets which are in turn glued to the side of the opening. A sectional diagram shows this clearly.

Two are required at the top, one at the bottom, and one in the hanging hook. The cord for these pulleys fixes on the bottom axle holding the jib in place, passes round the top of the hook before coming back to where it started.

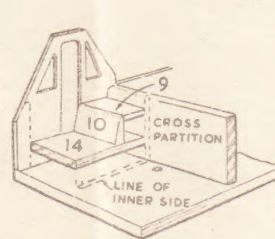
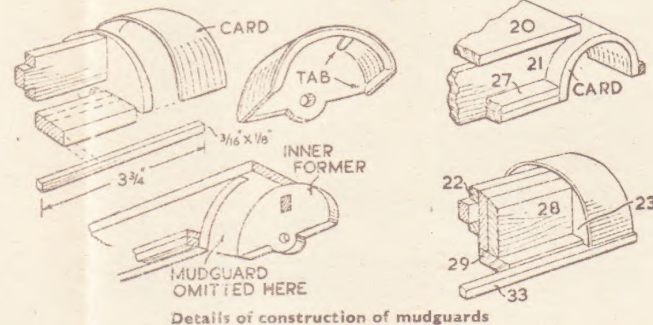
The pulley at the back end of the jib is merely to hold the fixing cord running to the axle inside the engine casing. Notice that the flat top of the jib is



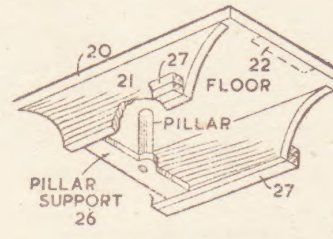
Side view of numbered parts



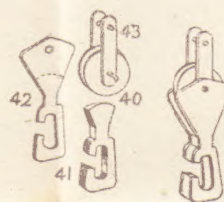
Rear jib fixing



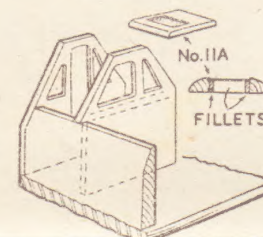
Cab interior



Underside of floor



The hook and pulley



Top cabin light

for the windows, the rod for the axles, and wire for fixing. The patterns clearly show shapes required, and are indicated in numerical order for their construction.

The best plan is to trace off the parts on to the wood, in order the pattern sheet may be preserved for reference. Notice where dotted lines show adjoining parts, and any shaping which has to be done. The various details here clearly indicate the construction, and the whole work of cutting is done with the fretsaw.

The finished model is painted with the chassis and undercarriage grey, and, perhaps, a yellow or brown cabin and jib. If you are making it as a toy, a bright colour will appeal to the youngster, but if you want it actually realistic, then the steel work, of course, will be painted grey. Markings on the upper portion are

The diagrams herewith also show the construction of the cabin portion with its projecting tail-piece in which the engine normally is contained. Notice the seat and floor portion inside, which can be made as a complete unit, and then glued to one side and the cross portion before the second side is added. In the floor portion (No. 1), there is an opening to allow access for the interior. Inside here you will see the axle glued into the sides. This axle will finally hold the jib upright by means of a piece of elastic or string holding the jib at the required angle.

This fixing piece runs through the top (4) and then over one of the pulleys in the bottom end of the jib. The circular turntable on the top of the chassis, is glued down and a 2in. spindle glued upwards to run through the floor and

The construction of the jib is simple. The top girder pattern is glued between the sides. There is no girder pattern part for the underside, but there are four strips of card (No. 46) glued across at the points you see in the diagram of the side view. Note, too, further card (pieces 45) glued near the top and at the rear end, whilst a rounded piece is put above the pulley, and a flat piece at the bottom (No. 47).

The pulleys can be cut and grooved. Four of them are needed, $\frac{7}{16}$ in. in diameter, shown as No. 40 on the pattern. Cut the tiny pulleys and file a groove in them before fitting in the jib.

uppermost. These pivot pins can be put in temporarily, but the jib itself must not be fixed in place until after it and the rest of the model have been painted.

A detail of the hauling hook on these lines is given, and patterns for the card and wood centre (41 and 42) are shown full size. Having made the three separate units—clean up all parts as usual, make sure they run and move satisfactorily and then finally paint in whatever colour is desired.

(We are indebted to Steels Engineering Products Ltd., of Sunderland (makers of the Coles Cranes), for plans and data from which this model was prepared).